SONY

VIDEOCASSETTE RECORDER U-matic

VO-5800PS

Operating Instructions page 2

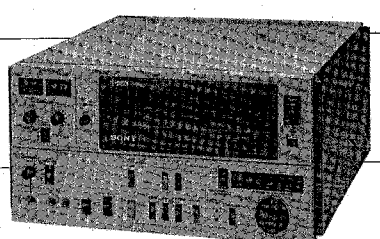
Before operating the unit,
please read this manual thoroughly and
retain it for future reference.

Mode d'emploi page 30

Avant de faire fonctionner cet appareil,
lire attentivement ce mode d'emploi
et le conserver pour toute référence ultérieure.

Bedienungsanleitung Seite 58

Lesen Sie bitte vor Inbetriebnahme des Gerätes
diese Anleitung aufmerksam durch, und
bewahren Sie sie zum späteren Nachschlagen
gut auf.



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English

The Sony VO-5800PS is a compact and light weight videocassette feeder/recorder incorporating the very latest technology, and you will find that being able to operate all functions on the front panel is very convenient.
The VO-5800PS is also designed to be a player of an editing system composed of the VO-5850P/VO-5850S Videocassette Recorder and the RM-440 Editing Control Unit.

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WARNING

- To prevent fire or shock hazard, do not expose the unit to rain or moisture.
- To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

WARNING FOR THE CUSTOMERS IN THE UNITED KINGDOM

THIS APPARATUS MUST BE EARTHED to your 3-pin plug in accordance with following instruction.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow:	Earth (safety earth)
Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug, proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Automatic editing system: Together with a VO-5850P/ VO-5850S Videocassette Recorder and a RM-440 Automatic Editing Control Unit, the VO-5800PS can compose an automatic editing system.

Smooth transition between scenes: The signal from another videocassette recorder or a video camera can be edited by using the PAUSE button, which assures a smooth transition between scenes. It is also possible to assemble two video signals by switching the VIDEO-1/VIDEO-2 select switch.

Search operation: Governed by the search dial, playback at 1/30 to 5 times normal speed is possible in both forward and reverse directions. When a KCS cassette is used, picture search (at about 10 times normal playback speed) is also possible with the search dial on the optional remote control unit.

Dubbing connectors: Connectors for editing or duplicating video signals are included.

LED time counter: The time counter reads the CTL signals recorded on the tape and the LEDs indicate the point on the tape in seconds and minutes.

Automatic transport operation: The PROGRAMMED OPERATION selector allows you to locate a particular point on the tape easily and quickly and also to play back a portion on the tape repeatedly.

Still picture: When the tape is stopped with the PAUSE button during playback, a still picture can be obtained. The guard band noise is limited to the upper or lower part of the screen so that the still picture is easy to see.

Long pause mode: When the tape is stopped in the pause mode for a long period of time, the machine automatically enters the long pause mode to avoid possible damage to the tape.

Moisture detector: When moisture condenses on the video head drum, the moisture detector is activated and the machine stops to avoid possible tape damage. The AUTO OFF indicator lights to indicate moisture condensation.

Remote control and auto search: The machine can be remotely controlled with an optional remote control unit. Any point on the tape can be searched for and played back automatically using an RX-353CE or RX-303CE Auto Search Control Unit.

Connectors for time base corrector: The best possible playback picture can be obtained when a time base corrector (optional) is connected.

Logic control: The logic control system allows you to change modes without pressing the STOP button.

Full automatic rewind: The tape is automatically rewound to the beginning when it runs to the end.

Automatic control of video recording level: The automatic gain control circuit maintains the proper video level, assuring optimum video recording.

Limiter function: The audio recording level is adjusted manually. The limiter circuit minimizes audio distortion at the program peaks.

Two audio tracks: Two audio tracks permits recording and playback of stereo sound or bilingual program material.

Audio dubbing: Audio (commentary, music, etc.) may be added to video recording made earlier.

Timer operation: With the aid of a timer (optional), recording and playback can be started and stopped when the recorder is unattended.

Stable playback picture: The servo system using a direct drive capstan motor and drum motor, and the newly developed digital servo IC assure a stable tape transport which reduces tape jitter.

Rack mounting: The VO-5800PS is designed to be mounted in a 19-inch EIA standard rack.

No power adaptation and low power consumption: Thanks to Sony's newly-developed high efficiency switching regulator, the unit can be operated with a wide range of power voltages and frequencies without power adaptation. Power consumption is low.

On safety

- Operate the unit only with a power source specified in the "SPECIFICATIONS" on page 27.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

On installation

- Allow adequate air circulation to prevent internal heat buildup. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.
- Do not install the unit near a heat source such as a radiator or an air duct, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Never operate the unit in a vertical position. The projections on the connector panel are to protect the connectors and switches on the panel when the unit is stored vertically.
- Keep the unit away from equipment with strong magnets as for example a large loudspeaker.

On operation

- When the unit is not in use, turn the power off.
- Remove and store video cassettes after recording or playback.
- Never operate the unit right after having transported it from a cold location directly to a warm location.

On cleaning

Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

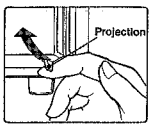
On transportation

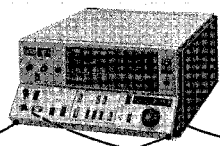
- Remove the video cassette when transporting the unit.
- Save the original carton and associated packing material. They will be useful should you have to transport or ship the unit.

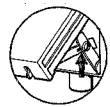
If you have any questions about this unit, contact your Sony dealer.

TO PUT THE OPERATION PANEL ON A SLANT

The lower half of the operation panel can be pulled out as shown below.





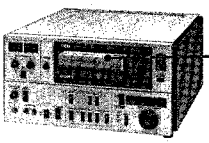


To put the panel on a slant
While pulling the projections on the bottom of the operation panel out, swing the bottom of the panel out and up until the side braces lock.

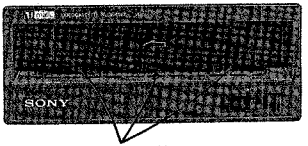
To return the panel to the original position
Push up on the side braces to unlock them and swing the panel down and back until it clicks into place.

TO INSERT A VIDEO CASSETTE

1. Turn the power on.
2. Insert a video cassette straight into the cassette compartment until it stops. The cassette is automatically loaded.



To insert a KCS cassette
Be sure to insert a KCS cassette into the center of the cassette compartment, aligning the cassette with the guide—the cutout at the cassette entrance and the lines on the cassette compartment lid.



If the STAND BY indicator remains lit and any of function buttons (except for the EJECT button) does not operate the recorder
Eject the cassette and take up the leader tape manually by turning the reel to the direction of the arrow on the bottom until the leader tape is completely taken up.
Insert the cassette again.

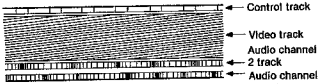
Notes on cassette insertion
- Before inserting a video cassette, check that the lamp inside the cassette compartment is not lit. If it is lit, a cassette has already been inserted.
- Be sure to insert the cassette straight into the entrance of the cassette compartment, not at an angle.
- Do not insert a cassette with the bottom side up.
- The labels on the cassette should be firmly attached. If they peel off an inserted cassette, you might not be able to remove the cassette.

TO REMOVE A VIDEO CASSETTE

1. Check that the power is on.
2. Press the EJECT button. The cassette will be automatically ejected.

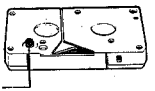
THE RECORDING FORMAT

The video and audio signals are recorded using the full width of the tape as shown below. Because of this, the tape cannot be recorded in the reverse direction.



THE RED BUTTON ON THE BOTTOM

If you want to safeguard the material recorded on a cassette, remove the red button on the bottom so it cannot be recorded even if the REC button is pressed. Accidental erasure is now impossible. If you later decide to record on this cassette, replace the button. If a cassette without a red button is inserted into the videocassette recorder, the E-to-E mode picture (see page 8) does not appear on the monitor screen.

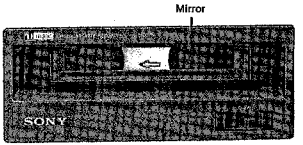


HANDLING AND STORAGE

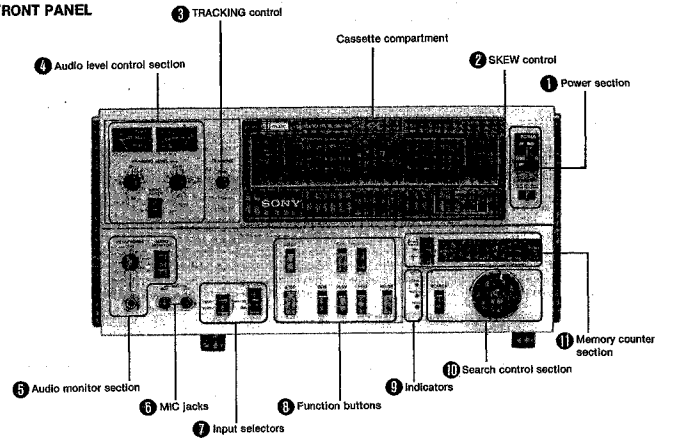
- Do not store a video cassette in a place subject to direct sunlight, high humidity or excessive dust, or near heaters, air ducts or a magnetic field.
- Store the cassette in the cassette case vertically, first rewinding the tape evenly on the supply reel.
- Avoid subjecting the cassette to mechanical shock.

TO DETERMINE THE AMOUNT OF TAPE ON THE REEL

The amount of tape remaining can be seen in the mirror inside the cassette compartment.



FRONT PANEL



❶ Power section

POWER switch
Press the side with the dot to turn the recorder on or to operate the recorder using the timer. To turn the recorder off, set the switch to OFF.

TIMER switch
Timer-activated recording or playback is controlled with this switch when the POWER switch is set to ON.
REC: To start and stop recording using the timer
OFF: To turn the timer off
PLAY: To start and stop playback using the timer
● When the switch is set to REC, the function buttons other than the STOP button are not activated.

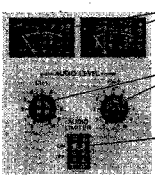
❷ SKEW control

This control adjusts tension on the tape. Slide the control to the right or the left to obtain a normal picture when picture "hooking" distortion appears in the upper part of the screen. Normally, set the control to the center detent position. This control returns automatically to the center position when the unit is set to the record mode.
● Do not move this control during recording.

❺ TRACKING control

Turn to minimize the tracking variance between machines so that the best possible picture is obtained.
Normally, set this control to the center FIXED position.

❻ Audio level control section

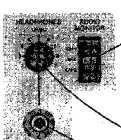


AUDIO LEVEL meters
These meters indicate the audio recording level during recording and the audio playback level during playback.

AUDIO LEVEL controls
These controls adjust the audio recording level of the channel 1 or 2 separately. Turn the controls so that the meter pointers swing up to "0" at their maximum deflection.

AUDIO LIMITER switch
Set the switch to ON when recording a program which contains peaks such as live recording. The audio limiter circuitry will be activated to minimize audio distortion at the peaks. For normal recording and when adjusting the audio recording level, set the switch to OFF.

❼ Audio monitor section



AUDIO MONITOR switch
This switch selects the monitoring sound through a video monitor or headphones.
CH-1: To hear the sound recorded on channel 1 only.
MIX: To hear the channel 1 sound from the left headphone and the channel 2 sound from the right headphone or to hear the mixed sound of the channel 1 and channel 2 through the video monitor connected to the AUDIO MONITOR jack or TV connector.
CH-2: To hear the sound recorded on channel 2 only.
● This switch does not affect the audio outputs of the LINE OUT jacks.

HEADPHONES LEVEL control
This control adjusts the volume at the headphones.

HEADPHONES jack (stereo phone jack)

❽ MIC jacks (phone jacks)

For microphone recording, connect microphones with phone plugs here. The CH-1 jack is for the left microphone and the CH-2 jack is for the right microphone. When a microphone is connected, the corresponding LINE IN jack will be automatically cut off.
To connect microphones with mini plugs, use the optional PC-2A plug adaptors.

❾ Input selectors

VIDEO-1/VIDEO-2 select switch
This switch selects the signal connected to the VIDEO IN 1 or 2 connector for recording when the INPUT SELECT switch is set to LINE.
VIDEO-1: To record the signal from the VIDEO IN 1 connector.
VIDEO-2: To record the signal from the VIDEO IN 2 connector.

INPUT SELECT switch
This switch selects the signal to be recorded.
TV: To record the signal from the TV connector.
LINE: To record the signal from the VIDEO IN 1 or 2 connector.
DUB: To record the signal from the DUB IN connector.

❹ Function buttons

EJECT button
Press to eject the video cassette.

REC (record) button and indicator
For recording, press this button simultaneously with the PLAY button. While this button is pressed, the E-to-E mode picture* can be seen in any mode.

DUB/CH-1 (audio dubbing) button and indicator
Press this button simultaneously with the PLAY button to add sound to the tape on which the video signal has been previously recorded.
The sound will be recorded on audio channel 1.

PAUSE button and indicator
Press to stop the tape momentarily. To start the tape, press again. When this button is pressed during playback, a still picture will be obtained. If the PLAY, F FWD, REW or SEARCH button is pressed during the pause mode, the pause mode will be released and the tape will run in the mode designated by the button pressed.

F FWD (fast forward) button and indicator
Press to advance the tape rapidly.

PLAY button and indicator
Press to play the tape back. Simultaneously pressing this button with the REC button sets the unit in the record mode; simultaneously pressing it with the DUB/CH-1 button sets the unit in the audio dubbing mode.

REW (rewind) button and indicator
Press to rewind the tape.

STOP button
Press to stop the operation of the unit.

*E-to-E mode picture
The input video signal which has passed the amplifier in the recorder, is displayed on the monitor. This is the E-to-E (Electronics to Electronics) mode picture. The E-to-E mode picture can be seen when the REC button is pressed.

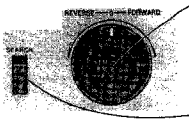
❺ Indicators

STAND BY indicator
This indicator lights while the tape is being threaded or unthreaded.

AUTO OFF indicator
This indicator lights to indicate that the moisture is condensed inside the unit. While the AUTO OFF indicator is lighting, the unit does not operate even if the function button is pressed.

SERVO indicator
This indicator lights when the drum servo and capstan servo are locked and the tape transport mechanism is stabilized. When the tape just begins to move, this indicator may flicker.

⓫ Search control section



Search dial
After pressing the SEARCH button, turn this dial to control the speed and direction of tape travel during the search for a particular point on the tape. You can vary the tape speed from 1/30 to 5 times normal playback speed. When the dial is set at the center "0" position, the picture will be still.
- When this dial is used, the servo system is not locked so the guard band noise flows on the playback picture.

SEARCH button
Press to engage the search dial.

⓬ Memory counter section

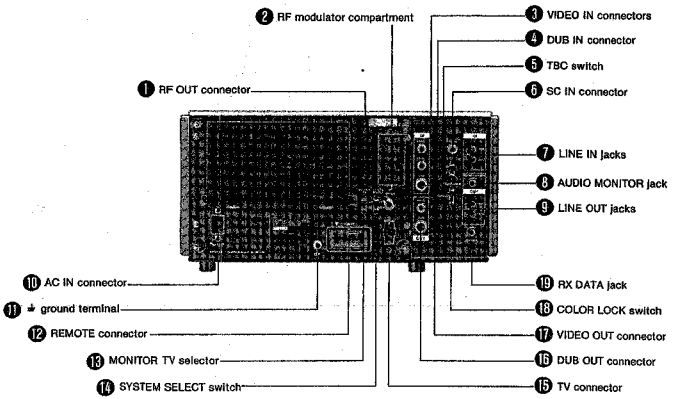
RESET button
Press to reset the time counter to "00 minutes 00 seconds". The points memorized by the MARK IN A and B buttons will be cancelled.

Time counter
This counter counts the CTL signals on the tape during playback, and the CTL signals being recorded during recording and indicates the tape running time at the normal playback speed in minutes and seconds (up to 99 minutes 59 seconds).

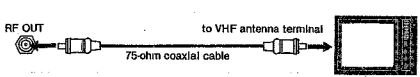
MARK IN A and B buttons
When these buttons are pressed, the indications of the time counter at that point are memorized. On the MARK IN A button, the point to be searched for or the point to start repeat playback is memorized; on the MARK IN B button, the point to stop the repeat playback is memorized. (For details, see page 20.)

PROGRAMMED OPERATION switch
A B: To repeatedly play a particular portion memorized by the MARK IN A and B buttons, or to check the memory on the MARK IN A and B buttons.
OFF: For normal playback, or for memorizing the points on the MARK IN A and B buttons. When the REMOTE connector is used, be sure to set this switch to OFF.
A: To stop the tape at the point where the MARK IN A button was pressed or, if the MARK IN A button has not been pressed, where the time counter indicates "00 00" in the rewind or search mode; or to memorize the points on the MARK IN A and B buttons.
- For details on the PROGRAMMED OPERATION switch, see page 20.

REAR PANEL

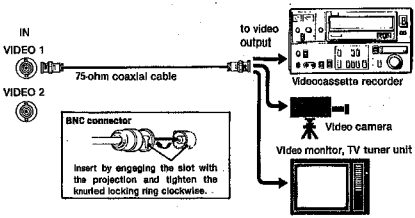


1 RF OUT connector
The output signal of the RF modulator, if it is inserted, is fed out here. Using this connector, you can see a picture on a conventional TV receiver.

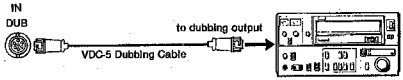


2 RF modulator compartment
Insert an RF modulator* (optional) here to see a picture on a conventional TV receiver.
*An RF (Radio Frequency) modulator converts the signal to be fed to the TV receiver into a UHF channel signal.

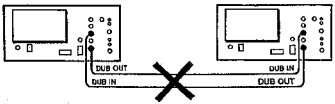
❸ VIDEO IN 1 and 2 connectors (BNC type)
Connect the video signal to be recorded to these connectors.

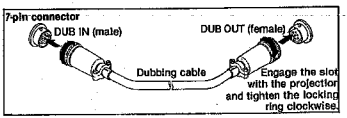


❹ DUB IN connector (7 pin)
When duplicating a tape using a player with a dubbing connector, the video signal is connected using this connector.



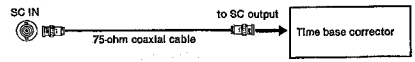
Note on DUB connectors
Do not connect the dubbing connectors in parallel.



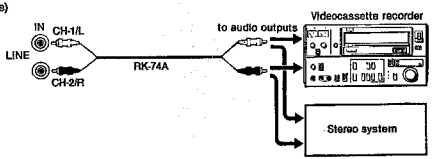

7-pin connector
DUB IN (male)
DUB OUT (female)
Dubbing cable
Engage the slot with the projection and tighten the locking ring clockwise.

❺ TBC switch
Usually set to OFF.
When the time base corrector (optional) is used, set this switch to ON.

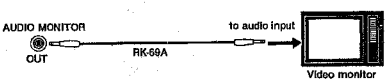
❻ SC IN (subcarrier input) connector (BNC type)
Connect the subcarrier from the time base corrector here.



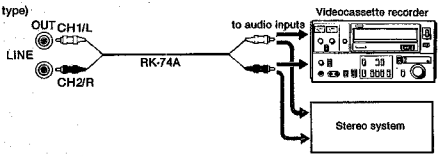
❼ LINE IN (audio line input) jacks (phono type)
Connect the audio signal to be recorded here.



❽ AUDIO MONITOR jack (mini type)
Connect to the audio input jack on the video monitor. The signal selected by the AUDIO MONITOR switch on the front panel is output here.

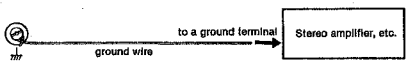


⑭ LINE OUT (audio line output) jacks (phono type)
The signals recorded on the audio channel 1 and audio channel 2 are output here.

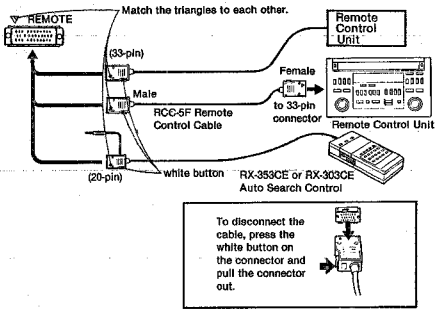


⑮ AC IN connector
Connect the supplied ac power cord here.

⑯ ⏚ ground terminal
To reduce hum in the audio signal, connect this terminal to a ground terminal of the connected audio equipment.



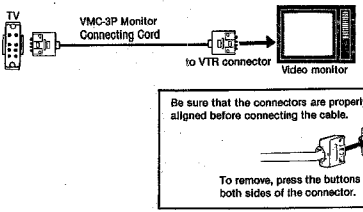
⑰ REMOTE connector (33-pin)
Connect an optional editing control unit, auto search control unit or remote control unit to this connector.
- Before connecting the remote control cable, check whether the connector is male or female.
- The REMOTE connector accepts a 20-pin connector. A plug adaptor is unnecessary.



⑱ MONITOR TV selector
Set this selector according to the type of video monitor used.
COLOR: For a color monitor.
B & W: For a black and white monitor.

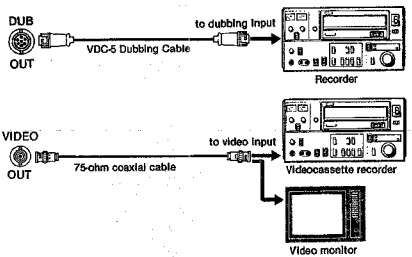
⑲ SYSTEM SELECT switch
Set this selector according to the video signal system adopted in your area.
PAL: For the PAL color system
SECAM: For the SECAM color system

⑭ TV connector (8-pin)
Connect to the 8-pin VTR connector of a video monitor.
The video and audio input and output connections can be made with a single cable. When this connector is used, the audio signal will be recorded on audio channel 2. The channel selected by the AUDIO MONITOR switch will be heard through the speaker on the video monitor.


TV
VMC-3P Monitor Connecting Cord
to VTR connector
Video monitor
Be sure that the connectors are properly aligned before connecting the cable.
To remove, press the buttons on both sides of the connector.

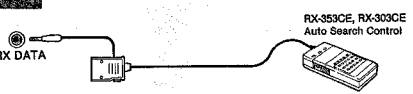
⑮ DUB OUT connector (7-pin)
When duplicating a tape using a recorder with a dubbing connector, the video signal is connected using this connector.

⑯ VIDEO OUT connector (BNC type)
The video signal is output here.



⑰ COLOR LOCK switch
As a rule, set to NORMAL. If the playback picture has no color or if the hue is abnormal, set the switch to the upper or lower position marked [•].

⑱ RX DATA jack (mini type)
For recording the data and reading the data recorded on the tape by the RX-353CE.



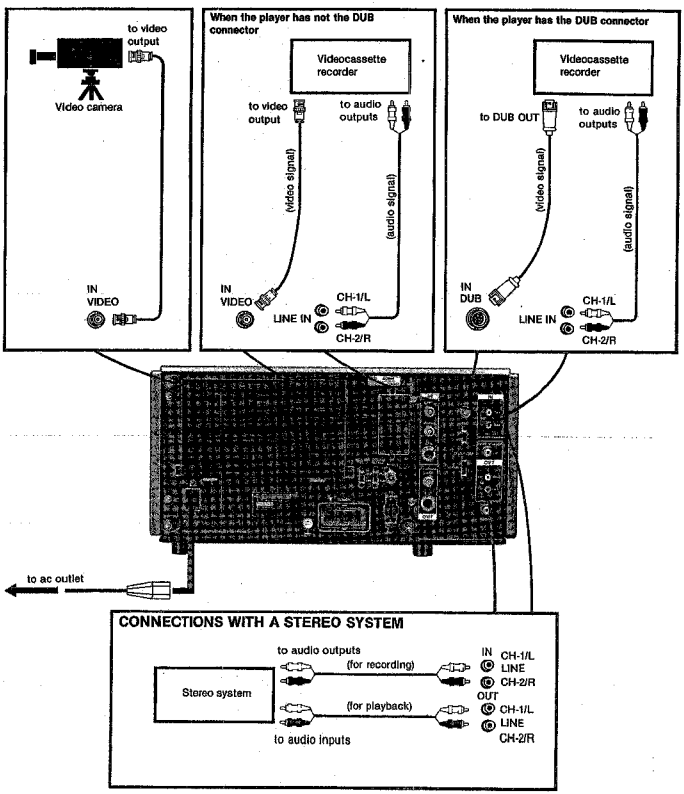
RECORDING AND PLAYBACK

CONNECTIONS

CAMERA RECORDING

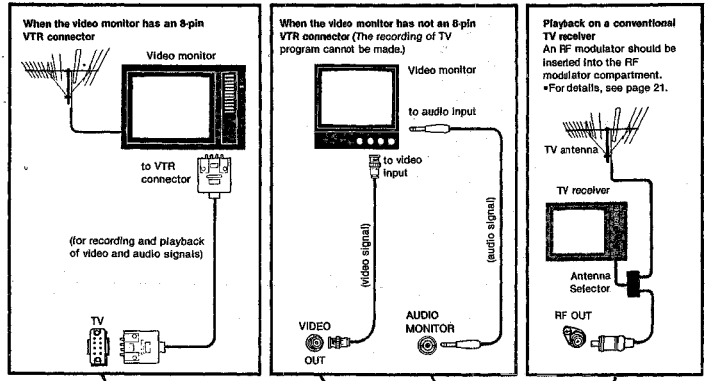
DUPLICATING A TAPE

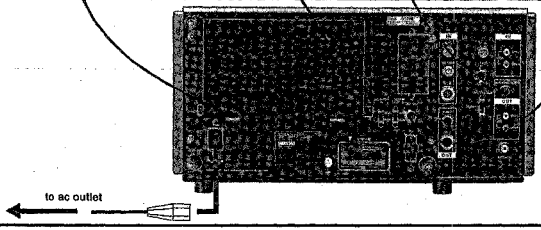
●Connect a videocassette recorder in either of the following ways.



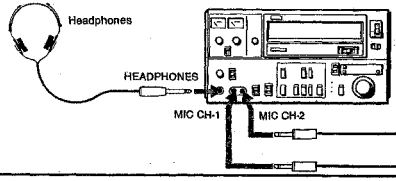
RECORDING TV PROGRAM PLAYBACK MONITORING THE RECORDING PICTURE

- Connect the video monitor in either of the following ways.


When the video monitor has an 8-pin VTR connector
Video monitor
to VTR connector
(for recording and playback of video and audio signals)
TV
When the video monitor has not an 8-pin VTR connector (The recording of TV program cannot be made.)
Video monitor
to audio input
to video input
(video signal)
(audio signal)
VIDEO OUT
AUDIO MONITOR
Playback on a conventional TV receiver
An RF modulator should be inserted into the RF modulator compartment.
•For details, see page 21.
TV antenna
TV receiver
Antenna Selector
RF OUT

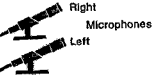


TO HEAR THE SOUND USING HEADPHONES



MICROPHONE RECORDING

- When microphones are connected, the signals from the LINE IN jacks are cut off and cannot be recorded.



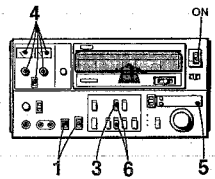
PREPARATIONS

1. Make the necessary connections. (See pages 14 and 15)
2. Turn the power of the video monitor on.
3. Set the input select switch on the video monitor according to the connector to be used:
   —When the VTR connector is used → VTR
   —When the video input connector is used → LINE
4. Set the SYSTEM SELECT switch on the rear of the VO-5800PS to PAL or SECAM according to the video signal system adopted in your area.
5. Set the MONITOR TV switch on the rear according to the monitor to be used.
   —When a color video monitor is used → COLOR
   —When a black and white monitor is used → B & W
6. Set the TBC switch on the rear to OFF.
7. Set the TIMER switch to OFF.
8. Set the PROGRAMMED OPERATION switch to OFF.

RECORDING

Turn the power on and insert a video cassette.

●Check that the red button on the bottom of the video cassette is in place before insertion. If a cassette without a red button is inserted, the E-to-E mode picture does not appear.



1. Set the INPUT SELECT switch according to the connector to be used.
   —When the TV connector is used to record a TV program → TV
   —When the VIDEO IN connector is used to record the camera picture or a TV program or to duplicate a tape → LINE
   ●In this case, be sure to set the VIDEO-1/VIDEO-2 select switch to VIDEO 1 or VIDEO 2.
   —When the DUB IN connector is used to duplicate a tape → DUB
2. Prepare the program to be recorded.
   —To record a TV program, select the channel.
   —To record the camera picture, adjust the camera.
   —To duplicate a tape, play the tape to be duplicated.
3. Press the REC button.
4. Adjust the audio recording level.
   1) Set the AUDIO LIMITER switch to OFF.
   2) Turn the AUDIO LEVEL controls so that the meter's pointers swing up to "0" at their maximum deflection. The CH-1 control adjusts the level of audio channel 1 (left) and the CH-2 control adjusts the level of audio channel 2 (right).
      ●When a TV program connected to the TV connector is recorded, the sound will be recorded on audio channel 2.
   3) When recording a program which contains sharp peaks, we recommend setting the AUDIO LIMITER switch to ON to minimize audio distortion at these peaks.

5. Press the RESET button so that the time counter indicates "00 00".
6. Press the REC and PLAY buttons simultaneously. Recording will begin.

To stop the tape momentarily, press the PAUSE button, and the tape stops after rewinding by about 30 control signals.

To resume recording, press the PAUSE button again.

When the recording is finished, press the STOP button.

●If recording is done to the end of the tape, the tape automatically rewinds to the beginning and stops.

CAUTION

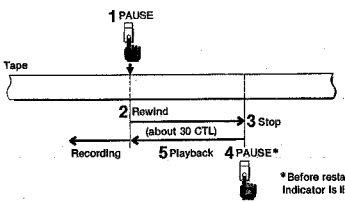
Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

TO RECORD SCENES WITH SMOOTH TRANSITION

Using the PAUSE button, you can smoothly add the scenes one after another.
Press the PAUSE button at the end of a scene, and the tape automatically rewinds about 1 second's worth of tape and stops (pause mode). The E-to-E mode picture remains on the monitor screen, but not recorded. To start recording the next scene, press the PAUSE button again. The tape runs in the playback mode to the point where the PAUSE button has been pressed to stop the tape, and the recorder enters the record mode. Thus the scenes can be continued smoothly.

Note
Do not disconnect the program source when the tape is in the pause mode or the scenes may not be smoothly continued.

The long pause mode
If the pause mode continues for about 8 minutes, the tape around the head drum automatically slackens to protect the video head and the tape.
This is called the long pause mode.



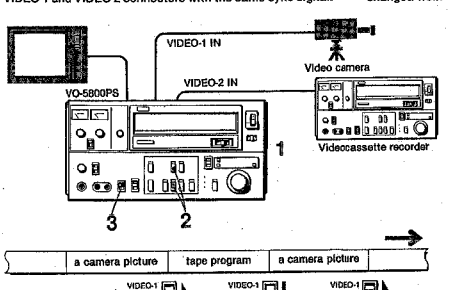
*Before restarting recording, check that the SERVO Indicator is lit, then press the PAUSE button.

TO EDIT THE SIGNALS FROM TWO VIDEO SOURCES

Using the VIDEO-1/VIDEO-2 select switch, you can edit the signals from two video sources, for example inserting a camera picture to the recorded tape or making a new program by combining two recorded tape programs.

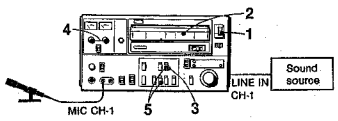
Connect the signal sources to the VIDEO IN 1 and 2 connectors.
●Be sure to operate the equipments connected to the VIDEO 1 and VIDEO 2 connectors with the same sync signal.

Operation
1. Make the necessary preparations on the recorder and the program to be recorded according to the steps 1 to 5 of "RECORDING" on the previous page.
2. Press the REC and PLAY buttons on the VO-5600PS, and the recording will begin.
3. Switch the VIDEO-1/VIDEO-2 select switch during performing the recording. The recorded program can be changed from 1 to 2 and vice versa.



TO DUB AUDIO

You can add a sound such as music or commentary on the tape on which the video signal has already been recorded. The new sound is recorded on the audio channel 1, and when the new sound is recorded, the previous sound will be erased.



Operation

1. Turn the power on.
2. Insert a recorded video cassette.
3. Press the DUB/CH-1 button.
4. Adjust the audio recording level.
5. Press the DUB/CH-1 and PLAY buttons simultaneously. The recorder enters the audio dubbing mode.

To stop dubbing, press the STOP button.

- If both a microphone and another audio source are connected simultaneously, only the sound from the microphone will be recorded.
- When a microphone is used, avoid pointing the microphone at the monitor or turn the sound volume on the monitor down, to prevent acoustic feedback (a whistle-like sound).

To record sound on the middle of the tape

Play the tape to the point at which sound is to be added and press the PAUSE button to stop the tape momentarily. Press the DUB/CH-1 button, then the PAUSE button again. The recorder will enter the audio dubbing mode.

TAPE DUPLICATION

The DUB IN and DUB OUT connectors of the VO-5800PS are for duplicating a video signal. If the player has similar type duplicating connectors, connect the recorder and player with a VDC-5 dubbing cable (optional).

- When the DUB IN connector is used, be sure to set the INPUT SELECT switch to DUB.
- When the DUB connector is used, the E-to-E mode picture on the monitor connected to the recorder may roll vertically when the player is in the pause and search mode.

TO HEAR THE SOUND BEING RECORDED

When a video monitor is connected to the TV connector or the AUDIO MONITOR jack, or when headphones are used, set the AUDIO MONITOR switch to the appropriate position to hear the desired sound.

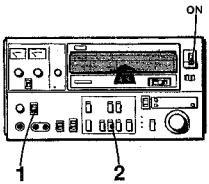
AUDIO MONITOR
CH-1
MIX
CH-2
to hear the sound on the channel 1 only
to hear the sound on both channel 1 and 2 simultaneously
to hear the sound on the channel 2 only

- The LINE CH-1 and CH-2 OUT jacks output the sound on channel 1 and channel 2, respectively. They are not affected by the setting of the AUDIO MONITOR switch.
- The volume of the headphones can be adjusted by the HEADPHONES LEVEL control.

ERASING

Recorded material is erased automatically when new material is recorded. To erase recorded material without recording new material, follow this procedure:

1. Disconnect all input connections to the TV, VIDEO IN, DUB IN, MIC, LINE CH-1 and CH-2 IN connectors.
2. Insert a video cassette with a red button on the bottom.
3. Set the machine in the record mode. The recorded material will be erased.



Turn the power on, and insert a recorded video cassette.

1. Usually set the AUDIO MONITOR switch to MIX.
   (If you want to hear only the sound on the audio channel 1, set the switch to CH-1 ; if you want to hear only the sound on the audio channel 2, set it to CH-2.)
   - This switch has no effect on the sound output from the LINE OUT jacks.
2. Press the PLAY button. Playback will begin.

To stop playback, press the STOP button.

- When the tape is played back to the end, it automatically rewinds to the beginning and stops.

TO STOP THE TAPE MOMENTARILY DURING PLAYBACK

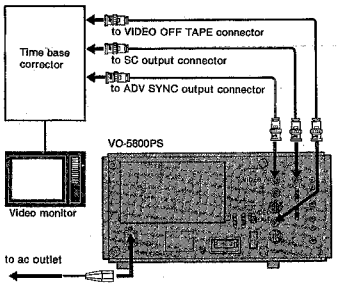
Press the PAUSE button. The tape stops and a still picture will appear on the monitor screen. To resume playback, press the PAUSE button again or press the PLAY button.

The long pause mode
If the pause mode continues for about 8 minutes, the tape around the head drum automatically slackens to protect the video head and the tape, and the still picture disappears. This is called the long pause mode.

USING A TIME BASE CORRECTOR

The best possible playback picture can be obtained when a time base corrector is used. Connect the time base corrector as illustrated below, and set the TBC switch to ON.

- For details on the operation of the time base corrector, refer to the instruction manual furnished with it.



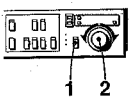
TO PLAY A TAPE BACK WITH AN EXTERNAL SYNC SYSTEM

Connect a sync signal or a composite video signal to the VIDEO 1 or VIDEO 2 connector, and set the INPUT SELECT switch to LINE and the VIDEO 1/VIDEO 2 select switch to the position corresponding to the connector used. In other cases, the VO-5800PS operates with an internal sync system.

SEARCH OPERATION

A particular point can be quickly located with the search dial.

Press the SEARCH button and turn the search dial to look for the point you want to locate. The search dial allows you to vary the playback speed from 1/30 to 5 times the normal playback speed in both directions. Set the search dial to the center "0" position at the point. The tape stops and a still picture can be seen on the monitor.



Notes

- During search operation, the servo system is not locked, so guard band noise flows on the playback picture.
- When the video signal is connected using the DUB connectors, the E-to-E mode picture on the monitor connected to the recorder may roll vertically when the player is in the pause or search mode.
- When the video signal is connected using the VIDEO connectors, the color of the E-to-E mode picture on the monitor connected to the recorder may be lost when the player is in the search mode. If this happens, set the COLOR LOCK switch to either upper or lower position.
- If the TBC switch is set to ON but a time base corrector is not connected, the vertical sync does not lock in the search mode and the picture rolls vertically.

PROGRAMMED OPERATION

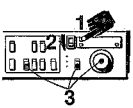
Using the MARK IN A and B buttons and the PROGRAMMED OPERATION switch, you can locate a particular point quickly or play a particular part repeatedly.

- You can memorize only one point on each MARK IN A or B button. If the button is pressed several times, only the last point will be memorized.
- The memory of the MARK IN A and B buttons are cancelled when the RESET button is pressed and the "00 00" will be memorized on both buttons.
- The PROGRAMMED OPERATION switch should be set to the OFF or A position when you memorize the point on the MARK IN A or B button.

To locate a particular point

1. Press the MARK IN A button at the desired point.
2. Set the PROGRAMMED OPERATION switch to A.
3. Run the tape in the rewind or search mode. The tape will stop at the point where the MARK IN A button was pressed.

- When the tape runs in the search mode, a still picture can be seen when the tape stops.



To repeat a particular part

1. Search for a point from where the playback is to begin and press the MARK IN A button to memorize the point.
2. Search for a point where the playback is to stop and press the MARK IN B button to memorize the point.
3. Set the PROGRAMMED OPERATION switch to A→B.
4. Press the REW button and the part between the points memorized on the MARK IN A and B buttons are played back repeatedly.

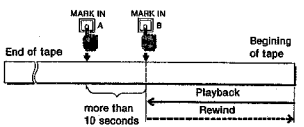
To stop the playback, press the STOP button.

- The video signal or the CTL signal should be recorded for more than 5 seconds after the point which is memorized on the MARK IN B button.

To repeat between the beginning of the tape and a particular point

1. Search for a point where the playback is to stop and memorize the point on the MARK IN B button.
2. Play the tape for more than 10 seconds, stop the tape and press the MARK IN A button.
3. Press the REW button.
4. Set the PROGRAMMED OPERATION switch to A→B. The tape rewinds to the beginning of the tape, then the recorder plays back the designated portion on the tape repeatedly.

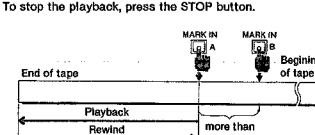
To stop the playback, press the STOP button.



To repeat between a particular point and the end of the tape

1. Search for a point from where the playback is to begin and press the MARK IN A button.
2. Rewind the tape more than 10 seconds by watching the time counter, stop the tape and press the MARK IN B button.
3. Play the tape.
4. Set the PROGRAMMED OPERATION switch to A→B. The tape is played back to the end and rewinds to the point where the MARK IN A button was pressed, and the playback of the designated portion on the tape is repeated.

To stop the playback, press the STOP button.



To check the memory on the MARK IN button.

1. Press the STOP button.
2. Set the PROGRAMMED OPERATION switch to A→B.
3. Press the MARK IN A or B button, and the memory on that button will be displayed on the time counter.

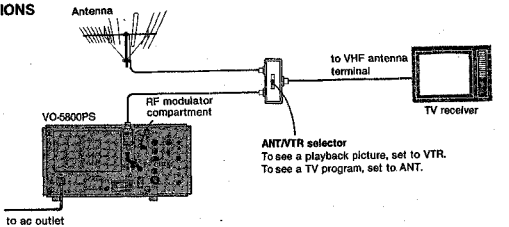
Memory on the MARK IN A and B buttons

The memory on the MARK IN A and B buttons and the display on the time counter will be kept for three days even if the power is turned off.

TO SEE A PICTURE ON A TV RECEIVER

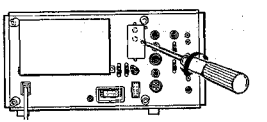
A playback picture can be seen on a conventional TV receiver when an RF modulator (optional) is installed into the VO-5800PS.
It is, of course, possible to see a TV program as usual.

CONNECTIONS

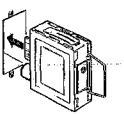


INSTALLATION OF AN RF MODULATOR

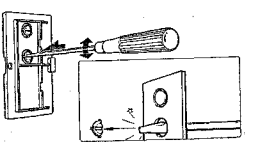
1. Loosen the screw on the RF modulator compartment, and remove the lid.



2. Install the RF modulator into the compartment aligning the direction properly.



3. Replace the lid.



- Push to break off the hole and the channel adjusting screw can be reset without removing the RF modulator compartment lid.
- For details, please refer to the instruction manual furnished with the RF kit.

OPERATION

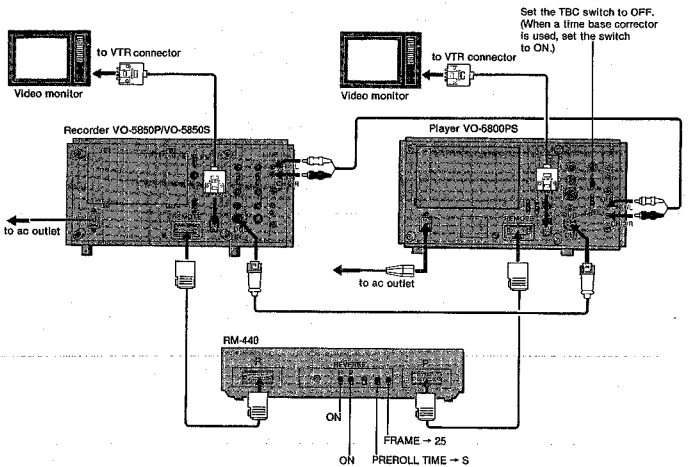
1. Set the ANT/VTR selector on the antenna selector to VTR.
2. Turn the TV receiver on, and set the channel to the output channel of the RF modulator.
3. Turn the recorder on.
4. Insert a recorded video cassette.
5. Set the AUDIO MONITOR switch to the appropriate position. (See page 7.)
6. Press the PLAY button. You can see a playback picture on a TV receiver.

When the RM-440 Automatic Editing Control Unit and the VO-5850P/VO-5850S are used with the VO-5800PS, accurate and automatic tape-to-tape editing is possible. Once the edit-in and edit-out points have been memorized on the RM-440, the editing can be done simply by pressing the AUTO EDIT button.

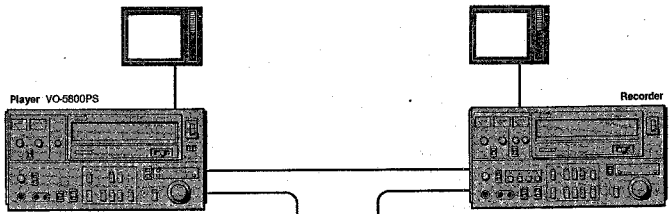
Almost all functions of the RM-440 can be activated when the RM-440 is used with the VO-5800PS. However, picture search is possible only when a KCS cassette is used.

●During picture search, the picture may become monochrome or roll vertically on some monitors. If this happens, release the picture search mode by turning the search dial.

CONNECTIONS

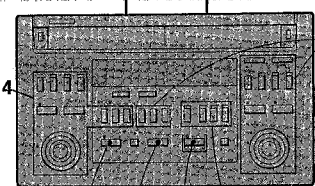


OPERATION



1 Make the preparations on the player.
1. Turn the power on and insert the recorded video cassette.
2. Set the AUDIO MONITOR switch to MIX in most cases.
3. Set the PROGRAMMED OPERATION switch to OFF.
4. Play the tape, and adjust the TRACKING control and SKEW control, if necessary, so that the best possible playback picture is obtained.

2 Make the preparations on the recorder.
1. Turn the power on and insert a video cassette.
2. Set the AUDIO MONITOR switch to MIX in most cases.
3. Set the MODE SELECT switch to EDIT.
4. Set the INPUT SELECT switch to DUB. (If the player is connected to the VIDEO IN connector, set the INPUT SELECT switch to LINE.)
5. Set the MEMORY switch to OFF.
6. Play back the tape on the player, and adjust the video recording level if the video signal is to be edited, or the audio recording level if the audio signal is to be edited.



5 Search for the edit-in point on the recorder and memory it.

4 Search for the edit-in and edit-out* points on the player and memory them.

3 Decide the edit mode, assembly editing or insert editing.

6 Press the PREVIEW button to rehearse the editing.
If necessary, modify the editing points with the TRIM buttons.

7 Press the AUTO EDIT button, and the editing is performed automatically.

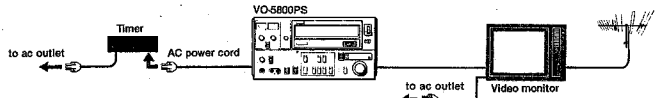
To check the edited result, press the REVIEW button.

*The edit-out point can be decided on the recorder instead of on the player.

•For details on the procedure of editing, refer to the instruction manuals furnished with the RM-440 and the recorder.

TIMER OPERATION

Using an optional timer, you can start and stop recording and playback while the recorder is unattended.



TIMER RECORDING

1. Turn the recorder on and make preparations for recording. (See page 16).
2. Set the time to start and stop recording on the timer.
3. Set the TIMER switch to REC.

The recording will begin at the time set on the timer.

- When the TIMER switch is set to REC, the function buttons other than the STOP button cannot function. Also the STOP button cannot also function during the tape being threaded just after the power is turned on.
- When the timer recording is finished, be sure to set the TIMER switch to OFF. If the POWER switch is set to ON with the TIMER switch remained to REC, the recording will automatically begin and the recorded material will be erased.

TIMER PLAYBACK

1. Turn the recorder on and make the preparations for playback. (See pages 18 and 19.)
2. Set the time to start and stop playback on the timer.
3. Set the TIMER switch to PLAY.

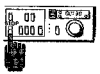
The playback will begin at the time set on the timer.

VIDEO HEAD CLEANING

—If the picture completely disappears at times or if only snow or streaks may appear on the monitor screen,

The video heads may be dirty. Clean the heads using the KC-1C Cleaning Cassette (optional).

1. Eject the inserted cassette.
2. Insert the cleaning cassette.
3. Press the RESET button so that the time counter indicates "00 00".
4. Press the PLAY and REC buttons simultaneously. The tape will start running.
5. When the time counter indicates "00 30", press the STOP button.
6. Eject the cleaning cassette.

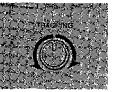


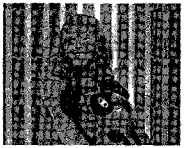
- Do not run a cleaning cassette for more than 30 seconds at a time, nor use it unless the picture symptoms clearly indicate the need for head cleaning. Excessive use of the cleaning cassette will shorten the life of the heads.
- Do not rewind the cleaning cassette every time it is used. Run the tape to its end, then rewind it.
- You can run through a cleaning cassette several times, although it does gradually become less effective.
- If no video signal is connected, the time counter does not change as the tape runs. In this case, use a clock to monitor the tape-running time and stop the tape it has run 30 seconds.

Normal picture

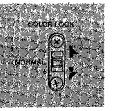
If a hookng distortion appears in the upper part of the picture:
Move the SKEW control slowly to the right or left until a normal picture is obtained.
- The SKEW control automatically returns to its center position when the unit enters the record or edit mode. In the record and edit modes, this control must not be adjusted.

If snow or streaks may appear when a tape recorded on another machine is played back:
Turn the TRACKING control slowly clockwise or counterclockwise until the best possible picture is obtained.
- When the playback of this particular tape is finished, be sure to return the control to its center FIXED position.





If the picture loses its color or does not maintain a correct hue:
Reset the COLOR LOCK switch on the rear to either upper or lower position.
- When the playback of this particular tape finished, be sure to return the COLOR LOCK switch to the NORMAL position.



AUTO SEARCH CONTROL

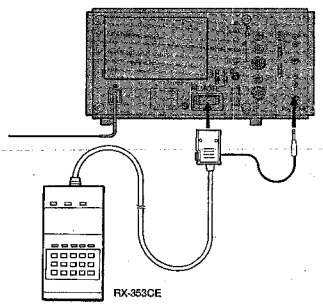
With the RX-353CE or RX-303CE Auto Search Control (optional), any point on the tape designated in minutes and seconds can be automatically located and played back. In addition, up to 8 segments can be automatically played back in any desired order. Refer to the Auto Search Control's instruction manual for details.

Notes

- Setting and controls on the recorder have priority over those on the Auto Search Control.
- Be sure to turn the power of the recorder off when connecting and disconnecting the 20-pin connector.
- Set the PROGRAMMED OPERATION switch on the VO-5800PS to OFF when the Auto Search Control is used.

USING THE RX-353CE

The RX-353CE devides the recorded material into segments. A segment has its own number and the beginning and end position on the tape, and we call them the segment date. The segment data can be recorded at the beginning of the audio channel 1 on the tape, and be kept even if the RX-353CE is disconnected or the power of the recorder is turned off. So the data can be used repeatedly.

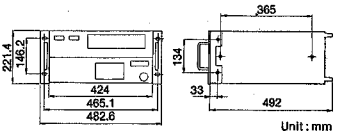


Notes

- The data recording level is automatically adjusted. So the level adjustment is not necessary.
- Do not run the tape with the function buttons or search dial on the VO-5800PS when the RX-353CE is used. This is because the indication on the tape position indicator of the RX-353CE and the actual tape position do not correspond correctly when the VO-5800PS is used to run the tape.

RACK MOUNTING

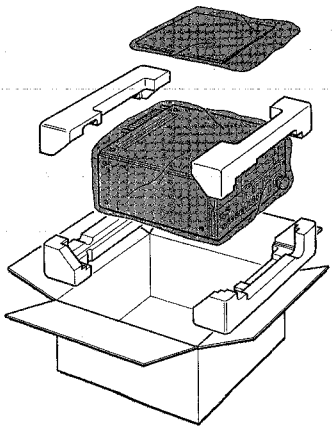
The VO-5800PS is designed to be mounted in a 19-inch EIA standard rack. It's also possible to mount the VO-5800PS in other racks which can answer a variety of needs. Please contact your Sony dealer when you want to mount the VO-5800PS in the rack.



Unit : mm

REPACKING FOR SHIPMENT

The repacking procedure is subject to change.
Refer to the illustration on the original carton for later packing instructions.



System

Video recording	Rotary two-head helical scan system Luminance : fm recording Color signal : converted subcarrier direct recording
Video signal system	CCIR standards, PAL or SECAM color

Video

Input	
VIDEO IN	BNC type, ×2 1.0 V (p-p) $^{+1.0}_{-0.5}$ V (p-p), 75 ohms, unbalanced, sync negative
DUB IN	7 pin, ×1
TV	8 pin, ×1
Output	
VIDEO OUT	BNC type, ×1 1.0 V (p-p) ±0.2 V (p-p), 75 ohms, unbalanced, sync negative
DUB OUT	7 pin, ×1
TV	8 pin, ×1
Horizontal resolution	
	Monochrome mode : 340 lines Color mode : 250 lines
Signal-to-noise ratio	Monochrome mode : more than 48 dB Color mode : more than 46 dB
Subcarrier	
SC IN	BNC type, ×1 2 V (0.5 - 3 V) (p-p), 75 ohms, unbalanced, sync negative
Recording level	Automatic

Audio

Input	
LINE CH-1, CH-2 IN	
	Phono jack, × 1 in each −10 dB, 47 k ohms
MIC CH-1, CH-2	Phone jack, × 1 in each −60 dB, for 600 ohm microphones
TV	8 pin, ×1
Output	
LINE CH-1, CH-2 OUT	
	Phono jack, × 1 in each −5 dB (with 47 k ohm load)
AUDIO MONITOR	Minijack, × 1 −5 dB (with 47 k ohm load)
HEADPHONES	Stereo phone jack, ×1 for 8 ohm headphones Level : adjustable (−24 dB to −46 dB)
TV	8 pin, ×1
Signal-to-noise ratio	Better than 48 dB (at 3% distortion) Both channels 1 and 2
Frequency response	50 - 15,000 Hz (channels 1 and 2)
Recording level adjustment	
	Manual, with audio limiter

Special functions

Pause	A still picture is obtained, with long pause function
Search	Possible (still, and 1/30 to 5 times of normal speed in forward and reverse directions) Picture search is possible with the RM-440 when the KCS type tape is used.
Tracking control	Possible
Skew control	Possible
Sync system	Internal and external
Vertical-interval switcher	
	Internal
Dropout compensator	
	Internal
Overlap of recording using the PAUSE button	
	1 ±1 frame
Programmed operation	
	Possible (The memory will be kept for three days.)

Tape transport

Tape speed	9.53 cm/sec (3¾ ips)
Recording or playback time	
	60 min (with KCA-60)
Fast forward and rewind time	
	within 4 min (with KCA-60)
Wow and flutter	±0.25% (DIN)
Tape compatibility	U-matic video cassette tape
Usable tape	KCA, KCS type tape

General

Power requirements	110 - 240 V ac ±10%, 50/60 Hz ±10%
Power consumption	75 W with RM-440
Operating position	Horizontal
Storage temperature	−20°C to +60°C (−4°F to +140°F)
Operating temperature	
	5°C to 40°C (41°F to 104°F)
Dimensions	Approx. 446 × 237 × 518 mm (w/h/d) (17⅝ × 9⅜ × 20½ inches)
	including projecting parts and controls
Weight	Approx. 24 kg (53 lb)
Accessory supplied	AC power cord (1)

While the information given is true at the time of printing, small production changes in the course of our compnay's policy of inprovement through research and design might not necessary be indicated in the specifications. We would ask you to check with your appointed Sony dealer if clarification on any point is required.

NOTE:
This appliance conforms with EEC Directives 76/889 and 82/499 regarding interference suppression.

RECOMMENDED VIDEO EQUIPMENT AND ACCESSORIES

Editing Control Unit RM-440
Color Video Monitor Sony CVM and PVM series
Color Video Camera Sony DXC series
Auto Search Control RX-353CE, RX-303CE
Remote Control Unit RM-500, RM-580
Cleaning Cassette KC-1C
Remote Control Cable RCC-5F
Dubbing Cable VDC-5 (5 m)
Monitor Connecting Cable VMC-3P (3 m), VMC-5P (5 m), VMC-10P (10 m)
Video Responder System VRC-100, VRS-110, VRD-100, VRP-100
RF kit RFK-650UCE/660UB/660UF/660CH
Multi Remote Control Unit RM-555
Video and Audio Signal Distributor DA-500
Video and Audio Switcher VCS-500
VTR Selector RM-V5

If the AUTO OFF indicator lights and the function buttons do not function ⇨ The moisture has condensed inside the recorder. Keep the power on and wait until the indicator goes off to indicate that the moisture has evaporated.
●Never insert a video cassette when the AUTO OFF lamp is lit.

Moisture condensation
When the unit is moved directly from a cold place to a warm place, or when the unit is operated in a place with high humidity, moisture may condense inside the unit. If the tape runs in this condition, it may adhere to the head drum or the tape guide and be damaged. To prevent this possibility, the unit is equipped with a moisture detector. The AUTO OFF lamp lights to indicate that moisture has been detected inside the unit. When this lamp is lit, the cassette is automatically ejected, if it is inserted, and the unit does not function, even if any of the function button is pressed.
●When the unit is first moved to place in which it is subject to condensation, we recommend you to wait for about ten minutes and to turn the power on so that the moisture detector will operate.

If the tape suddenly stops and the function buttons do not function ⇨ Eject the cassette, and take up the leader tape manually (see page 5). Reinsert the cassette and operate the recorder again. If the recorder does not function, turn the recorder off and contact your nearest Sony service facility.

If the STAND BY indicator remains lit and the recorder does not operate even though the lamp of the function button pressed is lit ⇨ (same as above)

If the cassette cannot be ejected ⇨ Turn the recorder off and contact your nearest Sony service facility.

Should you have a problem other than those mentioned as above, check the following three items then the list of problems and corrective actions. If the difficulty persists, contact the dealer from whom this unit was purchased, or your local authorized Sony service facility.

1. **Check that the ac power cord is firmly connected to a working ac outlet.**
2. **Check that the POWER switch is set to ON.**
3. **Check the connections: for recording and playback, see pages 14 and 15; for editing, see page 22.**

Problem	Corrective action
A cassette cannot be inserted.	●Is the cassette correctly inserted? (See page 5.) ●Check whether another cassette has already been inserted.
The tape does not run when the function button is pressed.	●Check that the TIMER switch is set to the position other than REC.
Recording cannot be done.	●Check that the REC lamp is lit. ●Check that the red button on the bottom of the cassette is in place. (See page 5.) ●Set the INPUT SELECT switch and VIDEO 1/VIDEO 2 select switch correctly. ●Adjust the audio recording level. (See page 16.) ●Prepare the program to be recorded. (See page 16.) ●Set the PROGRAMMED OPERATION switch to OFF.
Playback cannot be done.	●Check that the PROGRAMMED OPERATION switch is set to the proper position.
The playback picture Snow or streaks appears.	●Adjust the TRACKING control. (See page 25.) ●Clean the video head. (See page 24.)
The picture has no color.	●Set the COLOR LOCK switch to either upper or lower position. ●Set the MONITOR TV switch to the COLOR position.
The picture does not maintain the correct hue.	●Set the COLOR LOCK switch to either upper or lower position.
Hooking distortion appears.	●Adjust the SKEW control. (See page 25.)
Sound cannot be heard from a monitor or headphones.	●Set the AUDIO MONITOR switch to the appropriate position.
The recording or playback begins when the power is turned on.	●Check that the TIMER switch is set to OFF.